



Docket: 04012

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Hiroshi KAWAZOE et al.

Art Unit: 3752

Serial No.: 10/771,158

Examiner: Christopher S. KIM

Filed: February 4, 2004

For: FUEL INJECTORS

DECLARATION TRAVERSING REJECTIONS UNDER
37 C.F.R. 1.132

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

We, Hiroshi Kawazoe and Toshiro Makimura, experts in the field of fuel injectors, declare:

1) When the diameter of the downstream channel is 3mm and is double the diameter of 1.5mm of the jet opening, the fuel injector having a valve seat as shown in Fig. 1(a), the noise leakage through the valve seat was detected as 75.7 dBA. Same, the fuel injector having a valve seat as shown in Fig. 1(b), the noise leakage through the valve seat was detected as 76.1dBA. The fuel injector having a valve seat as shown in Fig. 1(c), the noise leakage through the valve seat was detected as 75.5 dBA.

2) On the other hand, when the diameter of the downstream channel is 5mm

and is approximately 3.5 times large than the diameter of the jet opening of 1.5mm, the fuel injector having a valve seat as shown in Fig. 1(b), the noise leakage through the valve seat was detected at 80.3 dBA. Same, when the diameter of the downstream channel is 7.1mm and is approximately 5 times larger than the diameter of the jet opening of 1.5mm, the fuel injector having a valve seat as shown in Fig. 1(b), the noise leakage through the valve seat was detected as 81.6 dBA.

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Hiroshi Kawazoe

Hiroshi Kawazoe

Toshiro Makimura

Toshiro Makimura

Dated: Jan 28 2005

Dated: Jan. 28. 2005